

WHAT IS CLAIMED IS:

1 1. A method for classifying blocks of data comprising the steps of:
2 capturing a block of non-textual data using a recording device
3 for which settings for data-capture attributes are indicative of characteristics
4 of said non-textual data;
5 linking meta-data with said block of non-textual data, said
6 meta-data corresponding to at least one said data-capture attribute during
7 said capture by said recording device; and
8 performing automated processing to assign description to
9 contents of said block, including utilizing said meta-data in determining said
10 description.

1 2. The method of claim 1 wherein said step of capturing includes
2 recording at least one of an image file by an image-capture device and audio
3 file by an audio recorder.

1 3. The method of claim 1 wherein said step of linking includes obtaining
2 exposure information that identifies an exposure setting of said recording
3 device.

1 4. The method of claim 1 wherein said step of capturing further includes
2 configuring said block as a file of non-textual data in a digital format and
3 wherein said step of linking includes forming a tag to said file, said tag being
4 indicative of a plurality of exposure time, automatic gain, film speed, shutter
5 speed, white balance, aperture/lens index, focusing index, and flash/no flash
6 operation.

1 5. The method of claim 1 further including a step of transmitting said
2 block of said non-textual data and said meta-data from said recording device
3 to a computer for performing said automated processing.

6. The method of claim 1 wherein said automated processing includes analyzing said non-textual data and said meta-data to identify content-based information and manipulating said content-based information to derive said description.

7. The method of claim 6 wherein said step of analyzing includes applying digital signal processing (DSP) to said non-textual data.

8. The method of claim 1 wherein said step of performing said automated processing includes assigning a semantic expression to said block of non-textual data for use as at least one descriptor for one of organizing said blocks of data and matching a query during a search for said block of non-textual data.

9. A system for classifying subject data comprising:
a recording device for capturing non-textual subject data and for recording meta-data, said meta-data being specific to an operational mode of said recording device during capturing of said non-textual subject data; and
a processor configured to implement a classification technique utilizing both of said non-textual subject data and said meta-data for identifying at least one classifier, said classifier being representative of an attribute of said subject data.

10. The system of claim 9 wherein said recording device is a digital camera.

11. The system of claim 9 wherein said operational mode of said recording device is based on a state as determined by at least one of exposure time, auto gain setting, film speed, shutter speed, white balance, aperture/lens index, focusing distance, and flash/no flash operation.

12. The system of claim 9 wherein said classification technique is a sequential progression of decision making comprising a plurality of classification nodes, at least some of said classification nodes including algorithms for determining which of a plurality of alternative next classification nodes is to be encountered in said sequential progression of decision making.

13. The system of claim 9 wherein said classification technique is a neural network having an input stage, an output stage and at least one decision-making stage, said decision-making stage comprising a plurality of classification nodes, at least some of said classification nodes configured to receive a plurality of weighted inputs from other classification nodes within said decision-making stage and from said input stage for generating an output as a basis for identifying classifiers.

14. A method of categorizing files of non-textual data comprising the steps of:

establishing an evaluation system for decision making, including using automated processing techniques to define a plurality of algorithms, said algorithms utilizing both of content-based data and meta-data, said content-based data corresponding to content information of a file of said non-textual data and said meta-data corresponding to data-capturing settings of a data-capturing device during capture of said file of non-textual data; capturing a file of non-textual subject data; and processing said file of non-textual subject data through said evaluation system for decision making to selectively identify a plurality of classifiers associated with said file of non-textual subject data.

15. The method of claim 14 wherein said step of establishing includes a learning procedure in which said content-based data is extracted from each of a plurality of learning images and said meta-data is identified for each said learning image, said meta-data for each said learning image being indicative of operational conditions of said data-capturing device during capture of said learning image.

- 1 16. The method of claim 15 further comprising a step of generating a
2 plurality of learning classifiers that are descriptive of said learning images,
3 said step of generating including applying content-based analysis for said
4 content-based data and meta-data analysis for said meta-data.

Parameter	Value	Unit
μ	0.001	1/s
σ	0.001	1/s
τ	0.001	1/s
η	0.001	1/s
κ	0.001	1/s
λ	0.001	1/s
α	0.001	1/s
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